<center>**REMARKS**</center>

The present application includes claims 1-31. Claims 1-16 and 24-31 are rejected under U.S.C. 103(a) as being unpatentable over Summers in view of Bartroli and further in view of Krishnan. Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Summers in view of Bartroli. Applicants respectfully traverse both rejections.

With respect to claims 1-16 and 24-31, the Applicants believe the Examiner's reliance on Summers is misplaced. The Examiner states on page 4 of the Office Action that "a mapping unit / surface unfolding for distance mapping from a reference axis / center of colon pipe said display index values / 3D shape and curvature features from the first set of data / 3D colon structure to a third set of data / 2D polyp detected images (see Figs. 3b and 1b, the 3D color encoded polyp image as shown in Fig. 3b is surface unfolded to produce the 2D visual display as shown in Fig. 1b, although Summers doesn't specifically disclose that the surface unfolded image is a 2D image it is well known in the art at the time the invention was made to have the unfolded image be 2D because unfolding is accomplished using distance mapping from the center of the colon pipe as is discussed in Bartroli [see Bartroli, abstract, right side of Fig. 1])."

More specifically, the Examiner's statement that "Fig. 3b is surface unfolded to produce the 2D visual display as shown in Fig. 1b" is not correct. Figure 1 does not illustrate an "unfolded surface" or a 2D visual display. Summers explicitly states that Figure 1 is an example illustrating the detection of polyps. As stated on page 286 of Summers, paragraph 1:

> Polyp detection was performed by using software with a prototypic automated polyp detector that identifies regions of the colon wall with

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abnormal shape. This polyp detector is a modified version of a lesion detector previously shown to identify endobronchial lesions successfully (17, 18). As in reference 17, the primary shape criterion for the polyp detector is elliptic curvature of the peak subtype. In simpler terminology, this criterion describes areas that protrude inward from the wall of the colon and are circumferentially round (i.e., polypoid). The principle behind the method is shown in Figure 1.

Summers, page 286, paragraph 1, lns. 1-15.

As stated in Summers, Figure 1 illustrates the principle for detecting polyps.

Figure 1 is not an unfolded surface or a 2D visual display. The caption of Figure 1

reaffirms that Figure 1 is not an unfolded surface or 2D visual display:

Illustration of shape-based colonic polyp detection. (a) In a hypothetical portion of the colonic surface, there are two polyps (arrows), one on a fold (small arrow) and the other between two folds (large arrow). (b) After the polyp-detection algorithm is applied, the surface is colored to indicate regions of different shapes. Colors indicate curvature type: orange to red, elliptic of the peak subtype; yellow elliptic of the pit subtype; green, hyperbolic (17). The algorithm has clearly distinguished polyps from haustral folds and normal colonic surfaces in this ideal example.

Summers, page 285, Figure 1 caption.

Figure 1 of Summers is not an "unfolded surface" or 2D visual display. Figures

1(a) and 1(b) illustrate a "hypothetical portion" of the colonic surface. As Figures 1(a)

and 1(b) show the polyps and folds as large and with great detail, one can see that the

Figures 1(a) and 1(b) are a magnified portion of the colonic surface. Although the

reference is in black and white, Figure 1(a) is demonstrating the detection of polyps on a

fold and between two folds. Figure 1(b) is demonstrating (presumably based on the

description) the coloring of the polyps to indicate the regions of different shapes.

The Examiner's statements regarding the relationship between Figures 3(b) and

1(b) are incorrect. As explained above, Figure 1 of Summers does not disclose an

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unfolded surface. Accordingly, "the 3D color encoded polyp image as shown in Fig. 3b" cannot be "surface unfolded to produced the 2D visual display as shown in Fig. 1b" as is alleged by the Examiner. Therefore, Summers, alone or in combination with Bartroli and/or Krishnan does not teach or suggest, at least, the limitation of "distance mapping from a reference axis said display index values from the first set of data to a third set of data" as recited in Claims 1, 9, and 24. It therefore is respectfully requested that the rejection under 35 U.S.C. § 103 be withdrawn with respect to claims 1-16 and 24-31.

With respect to claims 17-23, the Applicants again believe the Examiner's reliance on Summers is misplaced. The Examiner states that "the 3D color encoded polyp image as shown in Fig. 3b is surface unfolded to produce the 2D visual display as shown in Fig. 1b" on page 8 of the Office Action. As shown above, this statement is not true. Figure 1b is not an "unfolded" or 2D version of Fig. 3b. Accordingly, Summers does not teach or suggest "a method for viewing a virtually dissected anatomical structure / colon" as stated by the Examiner.

The Examiner also states that "the 3D color encoded polyp image as shown in Fig. 3b is surface unfolded to produce the 2D visual display as shown in Fig. 1b" in relation to the other elements of claim 17, namely: "instructing by a user the display of a virtual dissection of an anatomical structure; selecting by a user various characteristics of the anatomical structure for enhancement; and, observing by a user said selected characteristics and the virtual dissection." Again, the Examiner's interpretation of Figures 1 and 3 of Summers is incorrect. As discussed above, Figure 1 of Summers does not disclose an "unfolded" or 2D version of Fig. 3 of Summers, and thus Summers cannot teach or suggest the elements of claim 17. In addition, because Summers does not

disclose an "unfolded colon", it is improper for the Examiner to combine Summers with Bartroli. Summers does not disclose an "unfolded colon", and therefore Summers method cannot be modified using Bartroli's teachings "by replacing Summer's surface unfolded anatomical colon structure with the virtual dissection structure of a colon in order to provide a different visualization technique to further enhance the polyp detection". Therefore, Summers, alone or in combination with Bartroli does not teach or suggest, at least, the limitations of: "[a] method for viewing a virtually dissected anatomical structure, instructing by a user the display of a virtual dissection of an anatomical structure; selecting by a user various characteristics of the anatomical structure for enhancement; and, observing by a user said selected characteristics and the virtual dissection." as recited in Claim 17. It therefore is respectfully requested that the rejection under 35 U.S.C. § 103 be withdrawn with respect to claims 1-23.

For at least these reasons, Applicants respectfully submit that Summers, Bartroli, and/or Krishnan alone or in combination, do not teach or suggest each and every element of claims 1-31 and that claims 1-31 are now in condition for allowance. Applicant respectfully submits that Applicant has not made any admissions regarding the art cited by the Examiner. Therefore, Applicant respectfully submits that the claims of the present application should be allowed.

CONCLUSION

Accordingly, the application is believed to be in condition for allowance and an action to this effect is respectfully requested. If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below. Applicant believes no fee is due. However, please charge any additional fees or credit overpayment to the Deposit Account of GTC, Account No. 070845.

Respectfully submitted,

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